

LII.—On the Nervous System of the Strepsiptera.

By Prof. EDWARD BRANDT*.

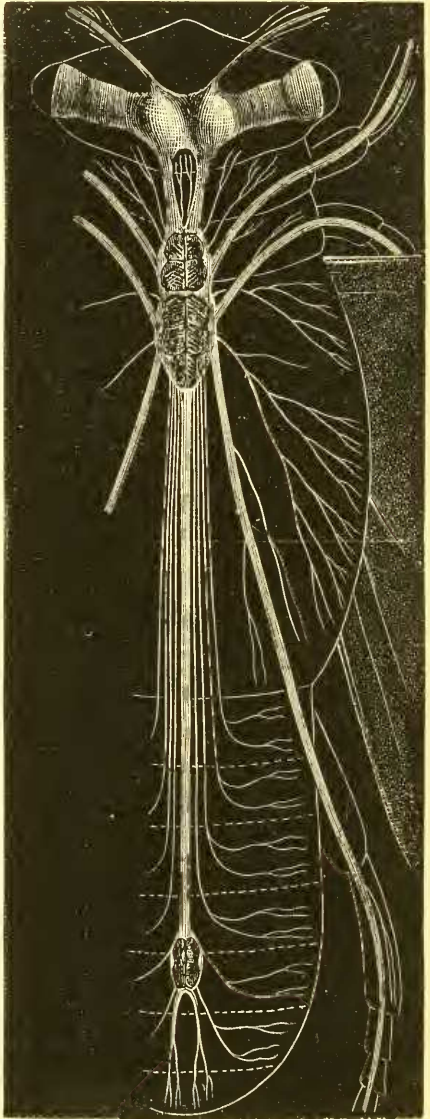
THE nervous system of the Strepsiptera has not been subjected to any special researches. C. Th. von Siebold† only states that these insects (*Xenos vesparum*) have one thoracic ganglion; but he does not say anything about the number of cephalic and abdominal ganglia.

My researches have been limited to four females and one male of *Stylops melittæ*, and one female of *Xenos vesparum*, preserved in spirit.

The results of my researches are the following:—

1. The cephalic division of the nervous system consists of the *ganglion supraœsophageum* only, the *ganglion infraœsophageum* being absent.

2. The thoracic division consists of a large ganglion containing five pairs of nuclei; it is divided into two parts:—an anterior and smaller one, corresponding to the *ganglion infraœsophageum* and to the first thoracic ganglion



* Abstract, communicated by the Author, of a memoir printed in Russian, St. Petersburg, 1878.

† C. Th. von Siebold, 'Lehrbuch der vergleichenden Anatomie,' Th. i. (Berlin, 1848), p. 582.

of other insects; and a posterior and larger part, which corresponds to the other thoracic ganglia and to some abdominal ganglia. The anterior division supplies nerves to the organs of the mouth (like the *ganglion infraesophageum*) and to the first pair of legs. The posterior and larger division of this ganglion supplies nerves to the second pair of wings, to the thorax, and to different segments of the abdomen.

3. The abdominal division of the nervous system consists of one abdominal ganglion, situated in the last third of the body. It is oval, and is connected with the thoracic ganglion by means of a long and thin cord. From this ganglion spring three pairs of nerves, of which the first and second pairs branch out in the fifth and sixth segments of the abdomen, while the last pair branch out in the last segment of the abdomen and in the rectum.

This nervous system is as curious as that of some Coleoptera* (*Rhizotrogus solstitialis*, *Serica brunnea*) and some Hemiptera (*Hydrometra lacustris*), as it has no *ganglion infraesophageum*.

LIII.—*Account of the Reptiles and Batrachians collected by Mr. Edward Whymper in Ecuador in 1879–80.* By G. A. BOULENGER†.

THE collection of Reptiles and Batrachians kindly placed in my hands by Mr. Whymper, though containing no striking novelties, is interesting on account of the care bestowed by its collector in recording the exact locality from which every specimen was obtained. I will therefore mention all the specimens contained in this collection. Four species appear to be new to science.

REPTILIA.

CHELONIA.

1. *Cinosternon*, sp.

Two very young, dried specimens, the dorsal shield 24

* Ed. Brandt, 'On the Nervous System of the Lamellicornia,' St. Petersburg, 1878 (in Russian).

Ed. Brandt, 'Researches into the Comparative Anatomy of the Nervous System of the Hemiptera,' St. Petersburg, 1878 (in Russian).

† This paper was ready for the press in November 1881; but the execution of the woodcuts has delayed its publication. In the meanwhile the descriptions of the new frogs have been published in the British-Museum 'Catalogue of Batrachia Ecaudata.'